

REMARKS

The Examiner has rejected claims 1, 2, 4, 6-16, 18-24, 26-38, and 40-42 under 35 USC 102, and has rejected claims 5, 17, 25, and 39 under 35 USC 103.

The claims have been amended to correct various typographical errors, and to further clarify the subject matter regarded as the invention. New claims 47-53 have been added. Claims 1-2, and 4-53 are now pending.

No new matter has been introduced by the amendments. Favorable reconsideration of the application, as amended, is respectfully requested.

REJECTIONS OF CLAIMS 1, 2, 4, 6-16, 18-24, 26-38, and 40-42 UNDER 35 U.S.C. §§ 102(e)

Claims 1, 2, 4, 6-16, 18-24, 26-38, 40-42, and 46 stand rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,665,304 (Beck). Applicant believes that all pending claims are allowable over the cited art for at least the following reasons. Withdrawal of the rejections is respectfully requested.

Claim 1, as amended, recites:

“a server which is configured to

determine that a first member of the standby group of network devices is not available to provide the network service; ~~and~~

identify a second member of the standby group of network devices to provide the network service; and

promote the second member of the standby group of network devices to active status from standby status such that the second member provides the network service by handling packets destined for the shared non-ATM network address,”

As set forth in the Abstract of Beck, a cluster of processor nodes appear as a single processor node to client operations. However, one of the processor nodes acts as a router for the cluster alias. See col. 11, lines 55-58. More specifically, each processor node within the cluster establishes a database containing the network layer addresses used by each of the processor

nodes in that cluster. The processor nodes arbitrate among themselves to determine which one will acquire the network layer address of a processor node that has crashed. See col. 13, lines 27-45.

Since Beck requires that the processor nodes themselves determine which of the processor nodes will acquire a network layer address of a processor node that has crashed, Beck neither discloses nor suggests that a server “determine that a first member of the standby group of network devices is not available to provide the network service; identify a second member of the standby group of network devices to provide the network service; and promote the second member of the standby group of network devices to active status from standby status such that the second member provides the network service...wherein the server is not one of the ATM network devices in the standby group of ATM network devices,” as recited in claim 1.

The Action treats the router 25 of Beck as the server. However, nothing in Beck discloses that the router has the ability to change the status of network devices in a standby group of network devices. The examiner cites col. 12, line 14- col. 13, line 63, which discusses the operation of the router and the processor nodes within the cluster. Beck discloses the fact that the routing daemon replaces one processor node that has crashed with another processor node as the preferred route to a particular subnet. See e.g., col. 13, lines 6-26. However, the routing daemon is merely concerned with a preferred route to a particular subnet. The routing daemon does not control the status of nodes within the cluster, or their ability to act on behalf of the cluster.

For example, nothing in Beck discloses the use of a non-ATM address that is shared by processor nodes in the cluster, or the ability of processor nodes to “service” such a shared address (e.g., process packets addressed to such a shared address). Rather, Beck shows that the processor nodes will arbitrate among themselves to determine which processor node will acquire the network layer address of the failed processor node. See e.g., col. 13, lines 26-59.

In rejecting the claims, the Action relies on Fig. 7 and column 10, lines 64-67 of Beck, which is the only location in Beck to mention ATM. The Action seems to assert that the network router 25 of Beck is an ATM server in the ATM network as claimed. However, the cited portion of the Beck patent merely describes that RPCs (Remote Procedure Calls) are issued over a high-speed communications interface (e.g., ATM) which connects the processor nodes (e.g., 10a-10c) within the cluster 24. Nothing in the Beck patent suggests that the router 25, which is outside of the cluster 24 and which the Action treats as the claimed server, is an ATM server that operates as claimed, where the ATM server is not in the standby group of ATM network devices.

With respect to claim 15, the Examiner asserts that the server is configured to send a notification identifying the first network device by ATM address and the shared non-ATM

network address, citing col. 12, lines 14-34. Col. 12, lines 14-34 does disclose advertisements that are transmitted. However, these advertisements are sent by the processor nodes, not the router. Rather, the routers merely develop a map database using the information obtained from these route advertisements. As such, Applicant respectfully asserts that Beck fails to disclose or suggest that a server that is not in the standby group send a notification, as claimed. Accordingly, Applicant respectfully asserts that Beck fails to anticipate claim 15.

With respect to claim 20, Applicant respectfully asserts that Beck neither discloses nor suggests a server which is configured to assign the network device to a first group of network devices having a first non-ATM network address; and promote the network device from a standby status to an active status in which the network device services the non-ATM network address, where the server is not one of the network devices in the first group, in accordance with the claimed conditions. Rather, as set forth above, the processor nodes arbitrate among themselves to determine which one will acquire the network layer address of a processor node that has crashed. See col. 13, lines 27-45. Accordingly, Applicant respectfully asserts that Beck fails to anticipate claim 20.

With respect to claim 23, Applicant respectfully asserts that Beck neither discloses nor suggests that the server change the network device from an active status in which the network device services the non-ATM network address to a standby status in which the network device does not service the non-ATM network address. Rather, this change is performed among the processor nodes via arbitration, as set forth above. Accordingly, Applicant respectfully asserts that Beck fails to anticipate claim 23.

With respect to claim 24, Applicant respectfully asserts that Beck fails to disclose or suggest that a server provide entries that each include a value used in determining whether the network device corresponding to the entry is currently acting as the device having the non-ATM address, wherein the one or more processors are configured to adjust the value when it is determined that the network device currently acting as the device having the non-ATM address is no longer available. Accordingly, Applicant respectfully asserts that Beck fails to anticipate claim 24.

Applicant respectfully asserts that the remaining independent claims are patentable for similar reasons to those set forth above. Therefore, the independent claims are believed to be allowable over the cited art. The dependent claims depend from one of the independent claims and are therefore patentable for at least the same reasons. However, the independent and dependent claims recite additional limitations that further distinguish them from the cited reference. The additional limitations recited in the independent claims or the dependent claims are not further discussed, as the above discussed limitations are clearly sufficient to distinguish

the claimed invention from the cited reference. Thus, it is respectfully requested that the Examiner withdraw the rejection of the claims under 35 USC §102.

REJECTIONS OF CLAIMS 5, 17, 25, and 39 UNDER 35 U.S.C. §§ 103

Claims 5, 17, 25, 39, 44, and 45 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over a combination of the Beck patent and RFC 2225 Classical IP and ARP over ATM (RFC 2225).

Applicant respectfully asserts that RFC 2225 fails to cure the deficiencies of Beck, as set forth above. Accordingly, Applicant respectfully asserts that the dependent claims are patentable for at least these reasons.

Moreover, with respect to claim 5, the Action cites column 11, line 30 - column 12, line 13 of the Beck patent. Claim 5 recites that “the ATM server can form virtual connections with each member of the standby group using an ARP protocol.” The cited portion used in rejecting claim 5 suggests use of an ARP protocol. However, column 11, lines 53-58 of Beck specifies that “all traffic ... are initially delivered to one cluster node” In other words, the ARP function in Beck is achieved by a cluster member (e.g., the processor node A), not the network router 25. As such, Applicant respectfully asserts that Beck fails to disclose or suggest that a server that is not one of the members of the standby group form virtual connections with each member of the standby group using an ARP protocol.

It is also important to note that Beck discloses that the processor nodes arbitrate among themselves to determine which one will acquire the network layer address of a failed processor node. As such, Applicant respectfully asserts that Beck teaches away from the server making a determination as to which member of a cluster is to process packets addressed to an address shared by the cluster, as claimed. Moreover, nothing in the cited references discloses or suggests the ability of an ATM server to ensure that the member receives packets destined for the shared address by replying with an ATM address of the member via an ATMARP reply in response to an ATMARP request identifying the shared address (e.g., see claims 45 and 48-53).

In view of the foregoing, the invention of the independent claims and their dependent claims is believed to be patentable over the cited art. Withdrawal of the rejections is respectfully requested.

IV. CONCLUSION

Applicant believes that all pending claims are in condition for allowance, and respectfully requests a Notice of Allowance at an early date. If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 510-663-1100.

Respectfully submitted,
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